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COMMITTEE ON EDUCATIONAL RESEARCH
The University of Alberta

Editorial Comment

With the publication of the September issue of *AJER*, Dr. Patricia A. Lane McFetridge left the editorship to return to full-time teaching in her position as Associate Professor in the Department of Elementary Education. The Editorial Board wishes to express its appreciation to her for her fine work in maintaining and extending the high standards set by her predecessors; this continued high quality has been achieved and maintained in the presence of constraints which introduced new challenges during her term of office. We wish Dr. McFetridge well in her scholarly work and look forward to the possibility of being given the opportunity to publish the results of some of her research in future issues.

It is likely that the reader might have failed to notice the succession of editors if this had not been drawn to his attention by this comment. The absence of any noticeable changes in this issue reflects, in a very limited way, some of the significant contributions to AJER made by the previous editor. The policies and procedures developed by Dr. McFetridge and the capable work of a number of people associated with the publication of the Journal have made it relatively easy for the incoming editor to assume his duties. The editor is already indebted to the many members of the Faculty of Education who have assisted with the review of manuscripts; in addition, the capable secretarial and editorial assistance provided by Miss Judy Rochefort in preparing manuscripts for publication has already proven invaluable. For the next three issues, we will also have the assistance of Mr. Armin Wilcer who is currently a graduate student in educational administration. The editor will continue to rely heavily on the skills of those who have been mentioned in selecting and publishing the contents of AJER.

* * *

An incoming editor is conscious of two major problems: (1) encouraging the submission of manuscripts, and (2) from those which are available, selecting the ones which seem to be most suitable for publication. Two highly important groups for him, therefore, are contributors, both actual and potential, and readers; obviously the two groups overlap to some extent and also have a definite interest in each other. For some time AJER has been providing notes on contributors which may give readers some useful information about those who are reporting research. The information which contributors might like to have about readers is not quite so easy to obtain, however, a beginning might be made by examining the mailing list.

The AJER list reveals that this issue will go out to 604 subscribers. Of this number, 180 are individual subscriptions while the remaining 424 might be categorized as some form of institutional subscription in that they are held by libraries, schools, research units, and so forth. The relatively large proportion of institutional type subscriptions is an indication that the potential audience, in terms of numbers, is probably much greater than would be indicated by a count of the copies mailed out.

The geographical distribution of subscribers may also be of interest to both readers and contributors. Of the total number of copies mailed, 454 go to subscribers in Canada; 283 of these are addressed to subscribers in Alberta while the remaining 171 go to the other provinces and territories. Thirty-one states and the District of Columbia are represented in the 88 subscriptions which are mailed to the United States.

Forty-three copies of AJER are mailed to various parts of the Commonwealth including the United Kingdom (18), Australia (13), India, New Zealand, Hong Kong, and Nigeria. The remaining 19 copies go to subscribers in 14 different countries, namely, Belgium, Chile, Federal Republic of Germany, Finland, France, Japan, Poland, Portugal, Rumania, South Africa, Spain, United Arab Republic, USSR, and Venezuela.

It is the hope of the editor that this information may not only be of interest to readers but that it may serve also to stimulate submission of manuscripts both from continuing and new sources. We will continue to welcome submissions from all possible sources on various topics relevant to research in education. The Editorial Board does set policies on type and quality of material which will be accepted for publication, however, in the final analysis, it is the contributor who determines what type and quality of material will become available to readers. The editor will welcome also any suggestions offered either by readers or contributors which would indicate how we might improve our service to those who have an interest in reporting on and reading about research in education.

Erwin Miklos
Editor and
Professor of Educational Administration

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During their freshmen orientation, 1,938 freshmen at a liberal Arts college over a period of five years were given the CPI. The grade point averages of these students at the end of the first semester and the first year were correlated with the scales of the CPI. Significant correlations were observed on eleven scales for males and nine scales for females.

ATLEE L. STROUP
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The CPI as a Predictor of College Academic Success

Although a number of investigators have studied the relationship between Gough's Inventory (CPI) and academic achievement, the evidence for the scale's predictive power is not conclusive. Gough (1959) originally suggested that three sub-scales, namely Ie (Intellectual efficiency), Ac (Achievement via conformity), and Ai (Achievement via independence) would be especially related to school achievement. Jackson and Pacine (1961) found the above three plus three other scales to be good predictors of college success, and Griffin and Flaherty (1964) found that nine scales were correlated significantly with freshman grades at a college for women. Snider (1966) and Linton (1967) found that the CPI distinguished achievers from underachievers in a Canadian high school setting.

Holland (1959) found that a number of CPI scales correlated at the .01 level with grade point averages for boys. These scales included Re (Responsibility), So (Socialization), and Fe (Feminity) in positive fashion; and negatively correlated with grades were Sp (Social Presence), and Sy (Sociability). For girls in Holland's sample, Sp correlates negatively and Ac positively. Ai and Ie were noticably poor predictors. It should be noted that Holland used National Merit Scholars, a sample of very restricted range in intellectual ability.

Procedure

All incoming freshmen at the College of Wooster (a coeducational liberal arts college) during the years 1959-63 were asked to take the CPI in mass supervised sessions during their freshman orientation week. Thus, the sample (males=968, females=970) represents nearly the entire population of the freshman classes at the College of Wooster over a five year period.

At the end of each freshman year, achievement—as measured by the grade point average (GPA)—for the first semester and for the first year (cumulative) was recorded for each freshman. The GPA was computed by the common method of multiplying the number of semester hours of credit received for each course by a numerical weighting assigned to the grade for the course (A=4 . . . F=0). This total was divided by the total number of hours undertaken during the year to arrive at the GPA for the year. Correlations of each of the 18 traits of the CPI with the GPA's were computed. Throughout the analysis the sample was segregated by sex, since the authors felt, as have most other researchers in the field, that sex differences could be significantly related to the correlation of personality with academic achievement.

Results and Discussion

The resulting correlations of CPI traits with first semester and first year GPA are shown in Table 1. Eleven of the personality items were correlated beyond the .01 level of significance for the males. Nine scales showed significant correlations for the females for both the first semester and the first year. Re (Responsibility) and Ai (Achievement via independence) were most highly correlated, although in both cases the correlation for the girls was not so high as for the boys. So (Socialization), To (Tolerance), Ac (Achievement via conformity) and Ie (Intellectual efficiency) were also among the variables most highly correlated with GPA for both sexes.

These results support Gough's prediction that the Ai score would be especially related to academic achievement. Simiarly, Ie and Ac are significantly correlated with achievement, as Gough predicted, although to a lesser degree than the Ai. Of the three additional scales which Jackson and Pacine found to be correlated with academic achievement, only Re was found to be significant beyond the .01 level in the present study. The remaining two items noted by Jackson and Pacine, Cs and Cm, were not found to be significant at this level.

Holland's study of National Merit Scholars was not strongly supported by the current study. Sp and Sy were found to be negatively correlated for males, as Holland had predicted, but they were not significant. As in Holland's study, however, Re, So and Fe were significantly

correlated for males. In comparison with Holland's findings for females, the present study found Ac to be significant, as did Holland; but contrary to Holland, Sp was not found to be significant in the Wooster sample. Also contrary to Holland's findings was the finding of the current study that Ai and Ie are good predictors for females.

TABLE 1

CORRELATIONS OF CPI WITH GPA

	CPI Scales	Males		Females	
		1st. sem.	1st year	1st. sem.	1st year
Do	Dominance	.087**	.105**	.049	.042
Cs	Capacity for Status	.078	.058	.039	.034
Sy	Sociability	-.021	-.032	.015	.010
Sp	Social Presence	-.064	-.081	-.049	-.056
Sa	Self-acceptance	-.014	-.023	-.032	-.031
Wb	Sense of Well-being	.093**	.100**	.096**	.076
Re	Responsibility	.285**	.285**	.210**	.223**
So	Socialization	.189**	.212**	.169**	.172**
Sc	Self-control	.129**	.138**	.150**	.144**
To	Tolerance	.181**	.163**	.173**	.138**
Gi	Good impression	.059	.075	.084**	.069
Cm	Communality	-.048	-.046	-.009	.030
Ac	Achievement via conformance	.195**	.215**	.179**	.178**
Ai	Achievement via independence	.255**	.256**	.185**	.182**
Ie	Intellectual efficiency	.188**	.181**	.205**	.187**
Py	Psychological-mindedness	.197**	.188**	.109**	.106**
Fx	Flexibility	.013	-.066	-.022	-.032
Fe	Feminity	.149**	.166**	.088**	.091**

**$P \leq .01$

The present findings agree more closely with those of Griffin and Flaherty, but the agreement is not complete. Re, To, Ac, Ai, Ie, and Fe were significantly correlated with academic achievement. On the other hand, while Griffin and Flaherty found the Do, Cs, Sy, and Sa correlate significantly for girls, these were not found to be significant in the current study.

It should be pointed out, as Griffin and Flaherty noted in their study, that although nine of the CPI traits were found to have correlations higher than chance in all groups of our sample, still the range is rather low. Practical usefulness of these items as predictors of academic achievement is open to some doubt. Gough (1949) reported correlations ranging from .25 to .44 between Ac, for example, and GPA for high school students. Results of the present study show correlations ranging only from .18 to .22 for Ac and GPA. (This may be compared with Holland's finding of .07 to .28 for Ac and GPA.) The relatively large size of the Wooster sample is responsible, of course, for the low R necessary for a statistically significant difference from chance.

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Multiple discriminant analysis was used to examine differences among groups on expectations for the role behaviour of principals. Results show that significant differences were present among teacher, principal, and superintendent groups in the sample. Expectations applied to the role of principal in secondary schools also differed from those applied to this position in elementary schools.

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Divergent Views of The Principal's Role: Expectations Held by Principals, Teachers And Superintendents

Introduction

Various concepts of the principal's role have been apparent during the last one hundred and fifty years. The development of larger schools, the increasing community interest in education, and the new concepts of business management are all affecting the role of the principal which is now changing more rapidly than ever before. In the field of education, as elsewhere, inefficiency, misunderstanding and dissatisfaction can sometimes be traced to the differences in role interpretation on the part of the personnel involved.

Chase (1953a, pp. 2-3) reported that the degree to which teachers' expectations for the role of the principal are met greatly influences teachers' enthusiasm and satisfaction. He also concludes from his own findings and from those of others that teachers' expectations of the leadership role of the principal vary from community to community

and are, perhaps, in part a response to the quality of leadership in their schools (Chase, 1953a, p. 1). Thorin's study in Detroit indicates that principals do not perceive accurately the total role concept held for them by the teachers in their schools and by their superintendents (1961, pp. 126-67).

Numerous significant studies have been conducted during the last ten years on the role of the principal, and a number of these were completed at The University of Alberta. Two of these studies in which the principalship was explored in an Alberta setting are particularly relevant for the present study. Morin (1964) was concerned with the perception of principals of their own role and he concluded that the traditional role of principal is changing in that principals want to have included, supervisory and evaluative responsibilities, along with their teaching, office and management duties. Miklos (1963), too, studied the principal's perception of his own role, but he was also interested in the expectations which are held for principals by teachers. He found that schools varied as to the degree of agreement among teachers regarding expectations for the principal's role and also as to the degree of consensus between principals' self expectations and the expectations held for principals by teachers.

Clarification of the principal's role appears to be a recurring need. The present study attempted to define and to compare the roles of principals in elementary and in secondary schools.

Method

Sample

All subjects participating in the study were employed by the Protestant School Board of Greater Montreal in May, 1968 when the data were collected.[1] Subjects included district superintendents, principals, and teachers at both elementary and secondary levels as shown in Table 1. District superintendents indicated their expectations for the roles of both elementary and secondary principals. Teachers and principals gave only expectations for the role of either the elementary or the secondary school principal, according to their own occupational level. Response rates for superintendents, principals, and teachers were 77%, 85% and 51%, respectively. A disproportionately small percentage of teachers responded, as compared to persons filling administrative positions. For this reason, results for the teachers' groups may be somewhat less generalizable than those for the other groups. Besides the differential response rates, there are large differences in the size of the population for each occupational group, resulting in an unbalanced design.

[1] This research was conducted while the principal author was at McGill University. The authors wish to thank the Protestant School Board of Greater Montreal for its co-operation and Mr. Ronald E. Cayne for his assistance with the computer programming.

It should also be noted that all of the principals and superintendents previously had been teachers in the employ of the school system and that most of the superintendents also had been principals in the schools of this board. These circumstances necessitate caution in the interpretation of results. Differences in responses may be attributable to different roles but also, possibly, to the occupational selection process within the school system. It is necessary, therefore, to replicate this study in other school systems before the findings can be generalized widely.

TABLE 1

DESCRIPTION OF THE SAMPLE

Organizational Level	Occupational Role			
	Superintendent	Principal	Teacher	Total
Elementary Schools	10	62	948	1020
Secondary Schools	10	17	577	604
Total	20	79	1525	1624

Instrument

Each respondent completed the Principal *Role Expectation Inventory*. This instrument is an adaptation of the questionnaire used in the 1961 National Principalship Study (Gross and Heriott, 1965). The 45 items on the instrument were selected to represent seven scale groups corresponding to areas considered to be of central concern to principals (Richardson, 1969). Each item represents an activity that some principals engage in, and the respondent expresses his opinion, on a five point scale, about whether a principal should or should not engage in each activity. Scale names, alpha reliability estimates, and sample items from each scale are shown in Table 2. While the reliability estimates are only moderate and do not merit predictions for individual subjects, they are adequate for a discussion of group differences.

Statistical Analysis

To examine the role expectations of the three occupational groups (superintendents, principals, and teachers) for elementary and secondary principals, six sets of responses were obtained. (See Table 1 for the number of respondents in each of the six cells.) The purposes of the analysis were (a) to determine whether or not there were differences in role expectations among the six respondent groups, and (b) to describe

TABLE 2

PRINCIPAL ROLE EXPECTATION INVENTORY SCALES,

SAMPLE ITEMS, AND RELIABILITIES

Scale	Sample Item -- The Principal Should:	Number of Items	Reliability[a]
1. Relationships with Parents	Encourage parents to help during school hours on school or class trips or projects.	6	.64
2. Attitudes Towards New Methods	Give additional free time to teachers who are trying out new ideas in their classes.	6	.62
3. Supervision of Teachers	Visit classrooms on a regular basis to determine how well teachers carry out their jobs.	9	.75
4. Unconditional Teacher Support	Support a teacher's discipline decision that the principal believes is grossly unfair to the child.	7	.44
5. Social Relationships with Teachers	Make it a practice to have lunch frequently with the teachers in his school.	8	.69
6. Teacher Control	Reprimand a teacher who publicly takes issue with school policies.	5	.53
7. Sharing of Responsibility	Share with teachers the responsibility for developing a policy for handling discipline problems.	4	.78

[a]Reliabilities are Alpha coefficients based on data from 948 elementary school teachers.

the nature of these group differences. A six-group multiple discriminant analysis was considered most appropriate to accomplish these aims.

Multiple discriminant analysis (Cooley and Lohnes, 1962; Jones, 1966) can be used to examine differences among discrete groups of subjects on many criteria considered simultaneously. First, a statistical test (a chi-square approximation of Wilks' Lambda) is made to determine whether there are differences among the score profiles of the groups. The test might be considered to be a multivariate analogue of the F-test as it not only compares all groups, but also compares all variables. When variables are not statistically independent such a procedure is necessary to avoid what has been referred to as the "multiple t-test fallacy." (Here it would actually be a multiple F-test fallacy). Second, successive tests reveal the number of ways the groups differ. That is, after one dimension of group difference is removed, a second dimension is examined to determine if the groups differ in another way as well. The process is continued until the groups no longer differ significantly. When various dimensions of group differences have been identified, they define a "discriminant space." The location of each group in this space is calculable and can be used to determine how closely the groups resemble one another. Third, for each dimension of group difference, a "discriminant function" is defined. This function is a weighted combination of the variables and the loading of the variables on the function defines its nature, much in the same manner as factor loadings in a factor anlysis define the factor. Variables with large loadings serve to separate the groups along the dimension under consideration. Finally, it is possible to rotate the discriminant functions (see Anderson, Walberg and Welch, 1969) to clarify further the nature of group differences.

Though this particular method is considered most appropriate for the analysis in general, similar overall results would be obtained using the traditional F-tests and t-tests. Any differences in results between the two methods are attributable to the multivariate nature of the discriminant analysis and the fact that variables may discriminate between groups even though group means are identical.

Results

The means and standard deviations for each of the six groups on the seven scales are shown in Table 3. The discriminant analysis yielded a Wilks Lambda of 0.838 (d.f. = 35, 6783); the probability that the groups were drawn from the same population was less than .001. Two significant ($p < .001$) discriminant functions were obtained, implying that the groups differed in two significant ways. The loadings of each scale on these principal functions are shown in Table 4, as are the

TABLE 3

MEANS AND STANDARD DEVIATIONS

Scales	OCCUPATIONAL ROLE									
	Superintendent				Principal				Teacher	
	elementary		secondary		elementary		secondary		elementary	secondary
	$\bar{X}$	s	$\bar{X}$	s	$\bar{X}$	s	$\bar{X}$	s	$\bar{X}$ s	$\bar{X}$ s
Relationships with Parents	4.03	.42	3.97	.51	3.80	.46	3.59	.50	3.42 .57	3.34 .66
Attitudes Towards New Methods	4.17	.32	4.10	.31	3.99	.41	4.09	.46	3.88 .46	3.90 .53
Supervision of Teachers	4.03	.50	3.74	.54	3.95	.47	3.88	.44	3.54 .55	3.31 .53
Unconditional Teacher Support	2.56	.14	2.58	.18	2.89	.36	2.68	.45	3.05 .48	3.09 .53
Social Relationships with Teachers	3.32	.39	3.31	.35	3.09	.56	3.20	.60	2.90 .50	2.87 .54
Teacher Control	3.66	.71	3.65	.70	3.79	.50	3.62	.57	3.33 .68	3.27 .69
Sharing of Responsibility	4.35	.59	4.32	.57	4.32	.47	4.09	.48	4.25 .55	4.23 .64

loadings on the functions after rotation. Figure 1 shows the centroids of each of the groups in the two dimensional space, and also reveals the position of the rotated axes relative to the six groups. The rotation was performed so that the first dimension (horizontal) would correspond to a "role effect" (superintendent-principal-teacher) while the second would correspond to a "level effect" (elementary-secondary).

TABLE 4

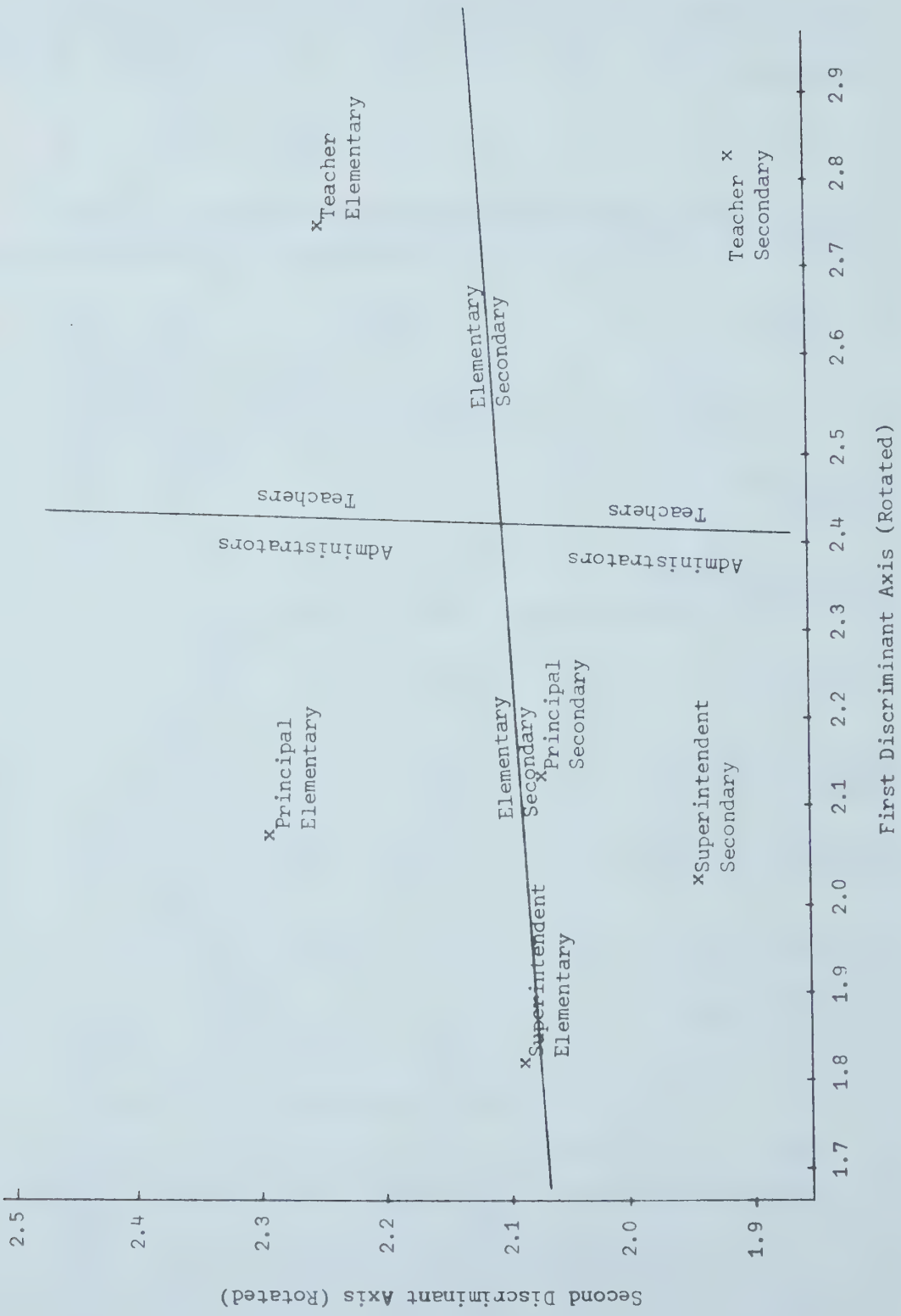
LOADINGS OF SCALES ON DISCRIMINANT FUNCTIONS

Scales	Principal Loadings		Rotated Loadings	
	First Function	Second Function	First Function	Second Function
Relationships with Parents	-.51	-.27	-.57	.04
Attitudes Towards New Methods	-.13	-.29	-.26	-.19
Supervision of Teachers	-.86	.09	-.73	.56
Unconditional Teacher Support	.38	.29	.48	.04
Social Relationships with Teachers	.22	-.88	-.30	-.86
Teacher Control	-.43	-.26	-.50	.01
Sharing of Responsibility	-.07	-.01	-.06	.04

Figure 1 also reveals the extent of quantitative difference among the groups. The position of the groups along the first discriminant axis reveals that teachers' expectations for the principal's role are about twice as far from principals' self-expectations that are the expectations of superintendents. That is, occupants of administrative positions tend to agree in their expectations for the principal's role while those with teaching duties have somewhat different expectations for the principal. The position of the groups along the second discriminant axis suggests that the role of the elementary principal is seen differently from the

Figure 1

Centroids of Six Groups in Discriminant Space



role of the secondary principal, and this is so particularly on the part of teachers.

The qualitative nature of the dimensions is revealed from a study of the rotated loadings (see Table 4) and the raw data (see Table 3). For our purposes an arbitrary level of 0.4 was chosen, and only loadings greater than 0.4 have been assumed to contribute meaningfully to the discriminant function. Teachers, generally, expect the principal to be high on "unconditional teacher support" and low on "relationships with parents," on "supervision of teachers," and on "teacher control." Superintendents, and to a slightly lesser extent, principals expect the contrary: little "unconditional teacher support" and more "relationships with parents," "supervision of teachers," and "teacher control." From the second rotated function we see that elementary principals are expected to value "supervision of teachers" to a greater extent than are secondary principals, but secondary principals are expected to encourage "social relationships with teachers" to a greater extent than are elementary principals.

Discussion

This study suggests that teachers view the role of the principal very differently from the way superintendents and principals themselves see that role. That there are differences in expectations held for the position of principal by the three occupational groups, which are at different levels of the educational hierarchy, is not too surprising, but what is particularly important is that the pattern of "high" and "low" expectations is completely reversed when we compare the expectations of teachers, on the one hand, with those of principals and superintendents on the other. When principals place a great deal of importance on contacts with the home and on the supervision and control of teachers, and little importance on the need to give unconditional support to teachers, and when teachers view the principalship in quite a different way, then there is a real possibility that conflict and misunderstanding will result between teachers and principals.

Perhaps of even greater importance than the differences in expectations held by the three groups, are the differences which may be *perceived* by the occupants of the various positions. Even when principals and teachers hold conflicting expectations of the role of the principal with regard to any one of the functions, it is still likely that one or both of the groups might assume that there is agreement and, consequently, make no effort to understand or to resolve differences. Also, it can not be concluded that where there seems to be agreement in stated expectations that each group necessarily perceives that there is agreement between the two groups. We would be very surprised, for example, if teachers perceived that they were in agreement with principals with

regards to principals' attitudes toward innovation. Yet our data seem to suggest that the principal's attitude toward new methods is not an area of potential conflict. It is a limitation of this study that administrators were not asked to indicate what they perceive to be the expectations of principals.

In this study no attempt was made to ascertain the expectations held by other reference groups. As compared to teacher expectations, the self expectations of the principal suggests that principals, much more than teachers, are aware of the need to involve parents in the education of their children. It is an open question whether parents would agree with the high priority which principals claim they place on this function. Had students been approached, especially those in secondary schools, would there have been disagreement between teachers and their pupils as well as between teachers and their administrators with regard to expectations held for the principal in the area of "unconditional teacher support"?

In a system where superintendents are responsible for the supervision of both elementary and secondary schools, where elementary principals are often former secondary school teachers and secondary school principals former elementary school principals, and where many secondary school teachers started their teaching careers in elementary schools, it is particularly important for principals, especially secondary school principals, to be aware of the different expectations held for the principal at the two levels. This study suggests that while teachers, generally, differ significantly from administrators, generally, in expectations held for the role of principal with regard to the supervision of teachers, elementary teachers value this function of the principal more than do secondary teachers. Similarly, while there is no significant difference between the expectations held by teachers, generally, and those held by administrators, generally, in the area of social relationships of principals with teachers, it may be important for secondary principals to note that they are expected to value this function more than are their colleagues in the elementary schools. The principal who is transferred from one level of schooling to the other would be wise to be conscious of the differences in expectations held by teachers in the elementary and secondary divisions of the system.

The reader is cautioned to be cognisant not only of the limitations of this study referred to earlier, but also of the global approach that has been employed in the analysis of the data. In Richardson's study (1969), a small part of which forms the basis of this report, the differences in expectations held for the role of principal *within* the occupational groups are described. With regard to a number of the functions of the principal, teachers of some elementary schools hold significantly different expectations than do teachers in other elementary schools. The

same is true for teachers in secondary schools and also for principals in both elementary and secondary schools. To the individual principal the expectations held for his role by teachers, generally, and by his peers are of limited value. What are particularly revelant to him are the expectations he holds for his own position and the expectations held by the teachers in his school and the superintendent to whom he is responsible. Of even greater importance is the determination of the kind of climate he should attempt to develop in his particular school which will tend to increase the areas of agreement and decrease the areas of disagreement between his teachers and himself. These are important issues which must continue to be explored.

The authors are of the opinion that additional macroscopic studies of the expectations held by different occupational groups for the role of principal and of the perceptions of each of these groups for the expectations held by others should be conducted in other urban systems, in suburban areas, in large units of administration, and in isolated rural communities. To complement these studies, the microscopic approach should also be employed so that the expectations held for a particular principal by his administrative superiors and by the teachers on his staff can be described, analysed, and modified.

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This article presents an overview of major structural changes which have taken place in organization for education in Alberta from 1840 to the present. Seven main eras of development are identified and the dominant characteristics of each are related to the educational thrust of the times.

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Perspectives on Change in Educational Structures in Alberta

In over a century of educational effort, there have been significant changes in the educational systems of the Canadian West. It is the purpose of this article to proved an analytical examination and perspective of the major structural changes in the school systems of Alberta over the years. An analysis of the records and research relative to the past educational patterns suggests seven main eras of development as follows:

1. Missionary Beginnings of Education, 1840-1884
2. Growth of Territorial Responsibility for Education, 1885-1904
3. Expansion of Pioneer Local School Districts, 1905-1913
4. Voluntary Consolidation Movements, 1914-1921
5. Rural High School Experiments, 1921-1938
6. Implementation of Large School Divisions, 1936-1957
7. Parallel Emergence of the County System, 1951 and on.

The changes in school structure in each era were related to the educational thrust of a changing society coping with new needs and unresolved problems from period to period. Further, it was discovered that each era could be defined by the formal introduction of new statutory framework which codified prevailing societal forces into legal enactments. It is proposed that the *orientation* of a society generates that *organization* which determines the actual *operation* of the schools for a period of time.

Alberta researchers such as Fenske (1968), Gilles (1942), Goresky (1944), Hambly (1959), Hochstein (1954), Lupul (1963), McCall

(1956), Sparby (1958), Sugden (1964), and Walker (1955) have examined specific facets of the Alberta developments in detail and provide much background and historical insight into the particular problems under examination. A recent study (Loken, 1968) underlines that geographical, religious, demographic, political, economic, and technological factors are deeply embedded in that social matrix which generates the school organization and the government required for each unique system of education. It is not the purpose of this article to summarize existing reports, but rather to offer a total overview of past educational developments and changes. It is hoped that the reader may be stimulated to examine firsthand some of the detailed research which is available on the story of education in Alberta.

Students and leaders of education should find a general overview article useful in providing background for a better understanding of the Alberta educational system. Perspectives on educational change prepare the educational leader for more mature involvement in the ongoing process of change, not change for the sake of change, but change geared to the real needs of society both at the present time and in the future. Finally, better educational planning for the road ahead is possible when there are adequate perspectives on the present as an expression of our past.

Missionary Beginnings of Education, 1840-1884

The discovery, exploration, and early settlement of the Canadian West is a fascinating story that continues to stir the imagination but can only be alluded to here. In 1670 the vast land known as Rupert's Land was ceded to the Hudson Bay Company. However, it was not until 1840 that the first Methodist missionary Robert Rundle arrived, followed by Father Thibault in 1842. The vision, zeal, and sacrificial efforts of later missionaries like Father Lacombe (1852) and McDougal (1862) continue to be recognized. There first missionary and educational efforts were often sporadic and exploratory, but eventually led to the establishment of mission bases at Whitefish Lake (1855), Lac Ste. Anne (1859), St. Albert (1861), Ft. Edmonton (1862), and Pakan near Smoky Lake (1864). As each mission was established, provisions for schooling followed. The simple curriculum of the missionary presented basic school skills, Christian doctrine, and some practical wisdom usually related to making a living in a land where the buffalo was being wiped out by white marauders. Instruction took place in the setting of camp fires, tent encampments, fur-trading posts, and mission stations. At this time the gun of the hunter was the technological symbol of both livelihood and conquest. Meanwhile, the missionary came with the symbol of the cross — uplifted in education and proclaimed in evangelism.

In 1870 by an Imperial Order in Council, the Hudson Bay Company territories and the North-Western Territory were transferred to the Dominion of Canada. All educational activities continued under the direction of the pioneering religious groups supplemented occasionally by some local efforts in early settlements, and some schools sponsored by the Hudson Bay Company.

It was not until 1878 that the government of the North West Territory first recognized the need to help education by providing a grant of $2000 for schools. Then, after 1881 limited federal grants paid one-half of teacher's salaries in non-Indian schools subject to these meeting federal regulations. As more settlements began to be established, the need for a more systematic approach to schooling grew. More settlers and squatters arrived each year. The first school ordinance for the organization of a public school system was passed by the Territorial Council in 1884 but implementation was not possible until 1885. The rapid opening of the West was creating the need for an organized approach on a large scale to education. Isolated company schools, voluntary efforts in the scattered settlements, and mission based programs could no longer meet the educational needs of the growing settlements. The era of predominantly church-sponsored mission schools was ending.

Growth of Territorial Responsibility for Education, 1885-1904

The year 1885 has been selected as significant for this was the year of the completion of the railroad across Canada, the Riel rebellion, and the passing of new school ordinances which opened the way for the establishment of the first public schools. A new era was on the way, symbolized by the steam engine of the C.P.R. moving more adventurers from an old world into a new land. Soon log schools became a part of many far-flung communities gradually being patterned by the surveyors attempting to bring order among the squatters.

Under the territorial ordinances of 1884, The Board of Education was created which provided for a dual system of education with equal powers to both public and denominational sections. From 1885 to 1890, the trend of territorial amendments was to diminish denominational control but to maintain the dual structure of education. Denominational schools were very much a part of the scene wherever so desired by the settlers, and public schools as such came slowly.

By 1891 the majority Protestant population began pressing for the abolition of the dual system The Rebellion of 1885 and rapid increase of Protestant settlers created a situation which was antagonistic to the Catholic Church and thus hastened the secularization of education.

The territorial government seemed determined to establish a uniform system of publicly controlled education. Thus, both types of schools increasingly came under territorial ordinances and amendments which provided for the centralization of control.

In 1892, the Council of Public Instruction replaced the Board of Education. This body assumed single control of the interna of education establishing uniform curriculum, authorized texts, approved teacher training, official inspections and school regulations. Thus, the dual system was replaced with a single public system which fully recognized the continuation of denominational schools.

At the turn of the century, the new railroads brought in more and more settlers. The great land boom was gaining in momentum. In 1901, a territorial Department of Education was established replacing the Council of Instruction. This further confirmed a public school system which permitted both Roman Catholic and Protestant separate schools. Normal schools for the training of teachers and some secondary schools began to function. By 1905 the Department of Education of the North West Territories was able to report 917 schools in operation, 41,033 pupils enrolled, 1,129 teachers employed, and territorial grants totalling $239,380.

Severe pressures were developing against the weaknesses and remoteness of the territorial government now operating for all of the West from Regina after having being moved from Battleford. Urgent area problems required closer and more immediate attention than was being provided by a remote government with little actual knowledge of the vast area it sought to serve and govern. It became apparent that the Dominion Government could not postpone the matter of provincial autonomy for the territories much longer.

Rapid Expansion of Local School Districts, 1905-1913

Alberta became a province of the Dominion of Canada on September 1, 1905. *The Alberta Act* guaranteed denominational school rights to both Roman Catholic and Protestant minorities. Thus, separate schools became a permanent part of the Alberta pattern having been first anchored in the territorial precedents of educational ordinances and further reflected in the compromises of confederation under section 93 of the British North America Act of 1867. Under these provisions the separate school system has grown in Alberta over the years as shown in Table 1.

The years from 1905 to 1913 were characterized by rapid development with the expansion of the small district type of schools inherited from the territorial beginnings. The free land under the Homestead system coupled with Canada's vigorous immigration policies swelled

the stream of settlers to the West. At the peak, a new school was being erected every other day; each school was a symbol of pioneering rural education in Alberta. As the railroads branched out, villages and towns sprang up with great suddenness. These were soon incorporated under separate provisions of the law and operated as independent units even though they were actually a part of the rural setting. Occasionally, the smallness of a town or village was complicated when separate schools were established within the boundaries. Often, a town or village district would serve the immediate rural area for school purposes.

Table 1

GROWTH IN SEPARATE SCHOOL DISTRICTS

BY SELECTED YEARS 1906-1966

Category	1906	1921	1936	1951	1966
Rural & Village	1	4	6	8	46
Town & City	6	10	12	17	41
Total Districts	7	14	18	25	87
Total Enrolment	994	3,830	5,990	10,485	57,060

Source: Annual Reports of the Department of Education

Most of the schools of this era were one-room schools supported by a geographical area approximating 16 to 20 square miles; it was thought that pupils should be within walking distance of the school. Through the years the number of these small districts was to increase to more than 5,000, and Albertans were to struggle with this territorial pattern for several generations.

Beginning in 1905 there was a great shortage of properly qualified teachers. As a rule most teachers were faced in the classroom with the super-human task of teaching all subjects to many grades in schools averaging well over 35 pupils per room. In many cases school was irregular often operating for a relatively short school year. Provincial grants were small. In 1906, grants amounted to $1.20 per day of operation with a bonus of 40 cents for each day of operation above 160, and a further bonus of 10 cents per day if the board employed a first class teacher. The average salary of Alberta teachers in 1906 was $614.

The small schools which sprang up in response to pioneering conditions soon proved to be inadequate in providing effective schooling for increasing enrolments. School inspectors and boards struggled with the problems of providing better instruction in better facilities. The one-room school seemed lost in the vast expanse of the West because of inadequate transportation and limited resources. People were generally poor but families were growing. The traditional school district in spite of its glories and victories generally proved to be an inadequate instrument for the administration of education. It could not cope with the growing enrolments and the needs of older children for higher grades of instruction.

Voluntary Consolidation Movements, 1914-1921

In response to reports from school inspectors, the government of the province provided legislation in 1913 which enabled two or more contiguous school districts to vote voluntarily to establish a consolidated school district. These school ordinances were amended again in 1919 to facilitate the establishing of districts and increased grants for transportation, instruction, and equipment especially in higher grades. The legislation which enabled the merging of small districts into one larger consolidation represented Alberta's first major attempt at cooperation on the larger scale to improve educational opportunities for rural people; this was a new educational thrust. In the decade from 1914 to 1923, 76 consolidations were formed. However, six of these never reached actual operation. A few suffered dissolution after a few short years of operation. The peak year was reached in 1921 when there were 68 consolidated school districts in operation involving the merger of 217 small school districts. As Table 2 indicates, consolidations were the greatest from 1914 to 1923 followed by a decline thereafter. In fact, since 1922 there have been only four new consolidations established: Pandora (1931); Crowsnest (1963); Cherry Point (1959); and Lodgepole (1966). In 1969, only four consolidations remain in operation. Generally, the consolidated school districts were confined to the southern part of the province; only ten were established in a northerly direction from Edmonton. During the peak years from 1920 to 1935, these schools served from 5000 to 7000 pupils and employed from 200 to 250 teachers.

Consolidated schools offered a superior type of education because of fewer grades per teacher and the fact that only those teachers who held first-class certificates could be hired. However, the total operation resulted in increased taxes due to extra building costs, heavy transportation costs, and higher salaries to better qualified teachers. These schools did make available a wider variety of school facilities, extended instruction to higher grades and did attempt some exploration of such

TABLE 2

NUMBER OF CONSOLIDATED SCHOOL DISTRICTS FORMED AND OPERATING BY SELECTED YEARS

Year	Number of Operating Consolidations	Number of Cooperating School Districts
1914	2	8
1915	12	39
1916	28	86
1917	39	128
1918	54	182
1919	63	209
1920	67	214
1921	68	217
1922	68	217
1923	68	217
1924	67	214
1925	67	214
1935	60	199
1945	27	106
1955	11	57
1965	6	35

Source: Annual Reports of the Department of Education

practical courses as domestic science, manual training, and agricultural training. However, the limited size of the consolidations did not provide an adequate base even though many of the districts were centred to include villages and towns. As Table 3 indicates, most of the consolidations consisted of only two, three or four merged districts. The records indicate that the greater the number of districts involved in a consolidation, the greater the chance of survival over the years.

The Rural High School Experiment, 1921-1938

After World War I there was a growing public demand for more high school opportunities for rural youth in Alberta. Public opinion was crystallized in April 1921, when the province passed *The Secondary Consolidated School Act* which came to be referred to as the

Rural High School Act. This Act enabled two or more local school districts to share in the cost of forming a centralized high school and provided a total provincial grant of $4.00 per day. In the first five years, only schools at Irma and Fleet had been formed. In fact, from 1921 to 1938, a total of only 19 were formed and these mostly in the south. In central and northern Alberta, severe winters, frequently impassable roads, and limited means of transportation were deterrents to consolidation. Most districts also feared the increased taxes which had been the experience of those districts involved with the earlier attempts.

TABLE 3

SIZE OF ALBERTA SCHOOL CONSOLIDATIONS, 1914-1966

Number of Cooperating School Districts	Number of Such Consolidations
2	21
3	27
4	23
5	4
6	3
7	2

Source: Annual Reports of the Department of Education

As shown in Table 4, high school consolidations generally involved the cooperation of four or five districts. Although most of these rural high schools remained one-room schools, two-room high schools were established at Fairview (1932), Beaverlodge (1934), Irma (1935), and Berwyn (1936). Enrolments were not high. Of the 17 schools operating in 1936, the average enrolment was 24.81. Generally, the better qualified teachers were attracted to the consolidated high schools. Often inadequate buildings, limited equipment, heavy teaching loads, lack of specialization, long travel for many, restricted curriculum, limited supervision, and local pioneer problems and inefficiencies made the task of the rural high school teacher very heavy indeed.

With only two exceptions, the high school consolidations involved the cooperation of a village or town district. In 1927 costs averaged about two mills on assessed evaluations. The cost of the rural high school operation proved to be less than those of the regular consolidated

schools since the latter were required to provide transportation at relatively enormous costs. It was not until 1922, that revisions of the Act enabled school districts to arrange for conveyance under mutual agreements. Control of the rural high schools was vested in a representative trustee from each co-operating district.

TABLE 4

SIZE OF ALBERTA RURAL HIGH SCHOOL CONSOLIDATIONS, 1921-1938

Number of Cooperating School Districts	Number of Such Consolidations
2	1[a]
3	3
4	6
5	4
6	3
7	1
8	1
Total Rural High Schools	19

Source: Annual Reports of the Alberta Department of Education

[a]Operated for only four months in 1927

In October 1921, the newly elected United Farmers' of Alberta government passed an amendment to *The School Grants Act* offering "an additional sum of 50 cents per day to each district operating only one room if instruction is given therein in grades above the eighth by the written authority of an inspector of schools." This amendment served to limit the consolidations which the Liberal government had provided for in the April Act of the same year. Prior to this amendment, it was a rare thing to find a rural school offering instruction above Grade 8, but in June 1922 there were 286 one-room rural schools attempting this difficult task at the rate of 50 cents per day. It is recognized that this amendment served to curtail the establishment of more rural high schools.

In 1921, the need for rural secondary education was obvious, but for the next 15 years no real solution was effected; however, the rural high school experiment bridged the gap between the more advanced thinking of a few educational leaders and that time when the

revolutionary change of the larger centralizations could be established. The way for this move was being prepared by the gradual improvement of roads, the increasing use of automobiles, and the real efforts of Hon. Perren Baker, Minister of Education and some of his colleagues in spreading the idea of very large consolidations as early as in 1929.

Implementation of Large School Divisions 1936-1967

The strain of the severe economic depression that started in 1929 served to reveal even more the flaws and weaknesses of the small district organizations and the limited consolidations that had been attempted. In 1935, the Social Credit government headed by the educator William Aberhart was elected by a sweeping majority. During his election campaign, he had advocated larger units of school administration as a part of the party platform. The new premier also chose to become the new Minister of Education. Shortly after he took office, his Department published *What Is and What Might Be in Rural Education in Alberta.* This received wide circulation. In 1936, *The School Act* was amended so as to give the Minister of Education full authority to constitute school divisions consisting of any number of rural districts where it appeared to be in the interests of education to do so. Provision was made for villages, towns, and consolidated districts to enter later by agreement.

In 1936, 11 divisions had already been ordered, but they did not actually become operational until 1937. Three years later 46 had been established. By 1967, 63 in all had been formed averaging about 65 small school districts per division. Numerous advantages resulted from this new approach to educational organization such as equalization of taxation, greater equalization of educational opportunity, better selection of board members, closer supervision, better administration, improved salaries, less teacher turnover, greater provision of resource materials, and real provisions for secondary education through the transportation of rural youth to centralized schools.

In spite of considerable local opposition, the large divisions were established over the entire province under the authority of the Minister and without a vote of the electors concerned. Nearly all of these divisions were divided into five sub-divisions each electing one trustee to the divisional board. Each division had at least two major officers: a school superintendent paid by and representing the Department of Education and a secretary-treasurer serving as business manager of the division. Revenue was derived almost entirely from two sources: provincial grants, and taxes levied on property within the division.

In time the benefits of the large centralizations came to be generally accepted by the public in spite of the early erosion of local

control. In fact, the pattern of organization imposed in Alberta soon became the trend in nearly all of Canada. The problem of obtaining adequate and new sources of revenue to meet the growing costs of education remained a critical one. It was the discovery of major oil fields in 1947 that made available major resources for financing education under the Foundation Fund Program which was established in 1961. Under this plan the province makes major contributions to education out of its general revenue funds.

The Emergence of Counties Begining in 1951

For the period from 1936 to 1951, the costs of education had tripled in Alberta. The fiscal independence of the large divisional school boards to requisition money from the municipal structures created constant complaints. The problem was aggravated by the overlapping of various boundaries with numerous inequalities in tax rates. After much struggle with these problems, the Alberta government decided to take another new step. It was decided to establish a county system whereby one common authority would be responsible for both municipal and educational services. Thus, in 1950 *The County Act* was passed making it possible to merge school and municipal structures under one board not to exceed eleven councillors with each one representing an electoral division within the county. In 1951, two counties were set up at Grande Prairie and Vulcan. In 1953 a boundaries commission was created to determine and recommend conterminous boundaries for the large school divisions and the new county structures. In this task of determining location and size of each unit several criteria became apparent and desirable: logical topography promoting the sense of community; sufficient productivity, assessment and size to support a complete program of services; adequate personnel but reasonable overhead; logical centres related to the flow of transportation in the area; and, reasonable regard for existing large divisions. Thus, a master plan of county organization was devised for the entire province.

From the county council, both a municipal and a school committee are appointed. The school committee with limited representation from cooperating villages and towns in the area functions for all practical purposes as a school board of a division except that the whole council of the county must approve the annual budget and the borrowing of monies. Thus, the school committee is fiscally dependent. The school superintendent is attached to the school committee.

The County Act provides for a plebiscite if desired on the question of the continuance of the county after four years of operation. Only the County of Sturgeon reverted to the former structures in 1965

over issues connected with the centralization of schools in the area. In 1968, there were 29 rural counties and two urban counties at Devon and Swan Hills.

The new county system provided for greater uniformity of taxation within the area. This organization overcame the internal disharmony over the allocation of resources within the area. It is now generally recognized that counties have reduced the complexities of administration by many structures and thereby promote an efficient approach to the provision of community services. Most counties appear to have achieved a balance between local interest and the broad base of adequate resources. The steadily increasing number of counties would seem to indicate that these will eventually displace the school division. In fact, most of the major areas of rural population tend to be covered by the county form of organization at this time.

The counties have promoted further centralization of schools and endeavored to provide more diversified programs of education at secondary levels. In the years ahead, it would seem logical to expect that the counties will be more and more involved with composite or regional high schools, district colleges, and adult education. Regional High Schools have been established at St. Paul and Stony Plain, and some counties and large divisions are involved with the direction and support of junior colleges. However, in 1968 there were still nine one-teacher high schools, fourteen two-teacher ones, and twenty-one three-teacher non-city high schools, and 210 with four or more teachers in non-city school systems.

In 1968 there existed 100 towns and 167 villages in Alberta but most of these centres were cooperating with either divisions or counties in school matters. Such cooperation remains essential if educational standards are to be raised and maintained. Meanwhile urbanization has progressed to the point where some 60 per cent of the people now live in ten cities with approximately one-half of the total population living in the two metropolitan centres of Edmonton and Calgary. Two decades of rapid urbanization have created major problems for the school boards of the major urban centres. Some have seriously proposed the county system of government also for the cities.

Summary

The examination of seven principal eras of education in Alberta has indicated the responsiveness of institutional structures to changing needs and pressures. Educational legislation passed in 1913, 1921, 1936, and 1950 reflect attempts to adjust and overcome limitations imposed by pioneering standards, territorial land system, and early government patterns and policies.

The early attempts at enlarged cooperations involved limited and voluntary consolidations. These served a necessary and useful purpose, but were established on too small a base to endure. The record of Alberta's experience here with two consolidated school movements would suggest that voluntary school movements tend to be scattered and limited. The importance of enlightened educational leadership, anchored in a platform of public endorsement with clearly defined goals, is apparent in Alberta's record.

It was not until 1936 that a bold and new approach to the solution of major educational problems was undertaken. The fruits of this step were soon apparent. Another important step was taken in 1951 when the county system was implemented. This represented a unified approach to the coordination and amalgamation of administrative structures providing community services to the taxpayers.

Table 5 provides a summary of operational data on the various school systems operating over the years. The legacy of the province's past is evident in the fact that Alberta still has a great variety in the type of school districts which are in operation in the province; however, the number of independent systems has been reduced to about 200 as shown in Table 5. By consolidation and centralization many systems now operate large schools with many classrooms and specialized roles for the teachers working in cooperation.

Table 6 provides a summary of the principal eras of education in Alberta suggesting some selected symbols and dominant figures for each era. This table also relates the educational thrust to the enactment base of each era.

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TABLE 5

OPERATIONAL DATA ON ALBERTA SCHOOL SYSTEMS[a] BY 15-YEAR PERIODS 1906-1966

School District Type	1906		1921		1936		1951		1966	
	Public	Separate	Public	Separate	Public	Separate	Public	Separate	Public	Separate
Rural	444	0	2404[b]	1	2455	2	35	5	24	39
Village	5	1	118[b]	3	207	4	18	3	2	7
Town	22	4	48	7	51	9	24	11	13	32
City	2	2	6	3	7	3	7	6	8	9
Sub-Totals	473	7	2576	14	2720	18	84	25	47	87
Consolidated (1913)[c]	0		68(217)[d]		60(197)		18(68)		6(24)	
Consolidated (1921)[c]	0		2(11)		17(81)		0		0	
Rural High Schools										
Divisions (1936)[c]	0		0		11(754)[e]		56(3799)		32(4065)	
Counties (1950)[c]	0		0		0		2		27	
Operating Systems	480		2660		2826		185		199	

Total Schools	570	2861	3492	2136	1376
Total Classrooms	760	4276	5873	6232	13,601
One-Room Schools	532	2489	2962	1551	100
Total Teachers	924	5320	6001	6788	17,183
Average Salary	$614	$982	$982	$2534	$6,159
Total Pupils	28,784	124,328	167,193	173,969	368,136
Per Pupil Cost	$48	$61	$54	$166	$449

[a]Excluding Private, Metis and National Defense Schools

[b]Estimated from Department of Education files

[c]Indicates year of enabling legislation

[d]Figures in brackets indicate number of districts merged or cooperate

[e]Counted as formed in 1936. Actually in operation January, 1937.

Source: Annual Reports of the Alberta Department of Education, 1906-1966.

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TABLE 6

EDUCATIONAL ERAS IN THE ALBERTA

AREA 1840-1967

Era With Dominant Figures	Era and School Symbols	Educational Thrust	Enactment Base
1840-1884 Fur-Trader and Buffalo Hunter	Gun --- Mission School	Missionary Education	Policies of Church and Fur-Trade (1840-1869) Federal Government Controls After 1870
1885-1904 Surveyor and Squatter	Steam Locomotive --- Log School	Expansion of Frontier Public and Separate Schools	Amendments of Territorial Ordinance (1884, 1885, 1890, 1892, 1901)
1905-1913 Homesteader	Steel Plow --- One-Room School	Rural Pioneer Education	1905 Provincial Statutes Based on Territorial Ordinances
1914-1921 Farmer	Binder --- Consolidated Schools	Community Consolidation Efforts	1913 Amendments Permitting School Consolidation
1921-1935 Community Builder	Wheat Pool --- Rural High School	Expansion into Secondary Education	1921 Amendments Permitting Secondary Consolidation
1936-1950 Farmer in Adjustment	Combine --- Centralized School	Centralization and Standardization in Large Divisions	1936 Amendments Establishing Large School Divisions
1951-1967 Urban Industrialist	Oil Derrick --- Composite Schools	Amalgamation Diversification Urbanization	County Act 1950 and Amendments to School Act

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The purpose of this study was to analyze the relationship between socio-economic status and both recognition and recall vocabularies of upper elementary school children. Significant differences were observed between upper and lower socio-economic groups on recognition, recall, quantitative, and qualitative vocabulary scores.

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Socio-Economic Status and the Meaning Vocabularies of Children

The development of concepts arises out of the ordering of experiences. The young child's preceptions of the world about him are gradually internalized through a process of differentiation, categorization, and abstraction. The end product of this process is the formation of concepts. Furthermore, the acquisition of an ever increasing store of concepts permits the young child to compare and contrast those concepts at his disposal thereby setting in motion a whole new process of ordering in which concepts may be placed in new classes according to their respective genres (Carrol, 1964; John & Goldstein, 1964). In other words, as the young child learns language, he learns socially reinforced names for the objects, sensations, sounds, and feelings around him. In turn, he is able to classify and categorize experiences into further and more abstract categories and to name them.

Words, the graphic and oral representations of conceptualized experience, provide the mediating link wherein conceptual development may be enhanced and extended. The close relationship which exists between the child's store of concepts and his functioning vocabulary has been elucidated by Russell (1956), among others. In many cases, both concept and word comprise the same items. However, it is the

spoken or written word which enables the young child to extend his knowledge of reality beyond the bounds of his present fund of conceptual understandings.

In this respect, the need to examine vocabulary responses at many different levels and from many different aspects, becomes apparent. Russell (1954) and Kruglov (1953) have conducted research in the area of qualitative responses in the recognitive situation. Their findings revealed a definite decrease in choice of concrete definitions and an increase in functional and abstract choices at higher grade levels. Hence, it becomes evident that studies of vocabulary should concern themselves with the qualitative aspects and differences in the vocabulary of children.

Many factors play an important role in the development of concepts and, subsequently, the formation of word meanings. The interaction of the child with his environment is basic to the development of a system of concepts for, "it serves as an experiential filter through which impinging events are screened, gauged, and evaluated; a process that determines in large part what responses can and will occur" (Harvey, Hunt & Schroder, 1961, pp. 2-3) In this respect, social class factors such as home environment, education and income of the parents appear to play the dominant roles in the development of language for the young child. The work of Deutsch (1964, 1965a, 1965b), Berstein (1962, 1964, 1965), Hess & Shipman (1965), and others, have pointed out the role that social class plays in the development of intelligence, vocabulary, and reading.

Accompanying these major determinants of language development are such related aspects as the degree of maternal care in infancy, sex, age, grade, and the stability of the home environment as revealed by the presence or absence of either parent in the home. Hence, it was the purpose of the present study to determine the effects of socio-economic status on the recognition and recall vocabularies of upper elementary school children. It was hypothesized that the highest level of language development would coincide with the highest level of socio-economic status. That is to say, the richer the environment in terms of income and education, the greater the fund of higher order word meanings the child should have at his disposal.

Sample

The subjects involved in the study consisted of 155 children selected from grades four to six of six schools in the Edmonton Public School System. Of the six schools authorized for use in the study, three were from an area designated as serving families of upper socio-economic status (USES), with 692 children enrolled in the upper

elementary grades of these schools. The remaining three schools were from areas designated as serving families of low socio-economic status (LSES) with a total of 311 children enrolled at the upper elementary grade levels. Socio-economic status was determined by means of the *Gough Home Index Scale,* a questionnaire which was administered orally to each child. The score obtained was then combined with the score obtained from the *Canadian Occupational Scale* to arrive at a socio-economic status score for each child.

Test Procedure

I.Q. The *Otis Self-Administering Test of Mental Ability, Intermediate Examination* was administered as a measure of mental age. This test was given in the form of a group test to the pupils selected from each school.

Recall Vocabulary Test. The vocabulary subtest of the *Stanford-Binet Intelligence Scale, Form L-M* was utilized to measure recall vocabulary. The test consists of forty-five words graded to difficulty, to which an acceptable oral definition must be given in order to secure credit.

The investigator administered the test according to instructions given in the *Manual for the Third Revision* (Terman & Merrill, 1960). Scoring was carried out according to Terman's directions.

Recognition Vocabulary Test. This test designed by Kruglov, consists of a multiple-choice vocabulary in which three or four of the five choices listed were correct according to the traditional scoring system for the *Stanford-Binet,* but of different qualitative levels according to the Feifel-Lorge (1950) study.

The ten item vocabulary test utilized items 1, 2, 4, 6, 7, 10, 12, 14, 17 and 23 of the vocabulary subtest of the *Stanford-Binet Intelligence Scale,* Form L. This test was administered as a group test after the recall vocabulary test was given to avoid bias in the recall vocabulary test results. The test was given orally to the group.

Responses to both tests were scored according to the modified Feifel-Lorge Qualitative Scale (1950) with numerical weightings assigned to each category on the basis of their hierarchical order (Labensohn, 1967). Each response was scored according to the following scale:

(a) Synonym Category (e.g. orange — a fruit) = 4 points,
(b) Use and Description Category (e.g. orange— you can eat it) = 3 points
(c) Explanation Category (e.g. straw—it's part of the grain that's dried and kept for feeding animals) = 2 points
(d) Inferior Explanation Category (e.g. envelope— a letter for sending) = 1 point

(e) Error Category (e.g. roar—It means out loud, drunk) = 0 points.

Data concerning sex, age, grade, and absence of either parent in the home were collected from the *Gough Home Index Scale.* Recall, recognition, and quantitative vocabulary scores were examined in the context of the above personal variables including socio-economic status and intelligence.

Results and Discussion

Multiple linear regression models were used to determine which variables contributed significantly to the prediction of the recognition recall and quantitative vocabulary scores. In addition, the total sample was divided into an upper and a lower socio-economic group and the two groups formed were then compared using the same variables as those for the total sample to see if significant differences existed between them in terms of these variables. The .01 and .05 levels of significance were used to evaluate the findings. A summary of the findings follows.

1. In comparing the two groups, significant differences were found between them beyond the .01 level of confidence on all variables: mental age scores of the *Otis Self-Administering Tests of Mental Ability, Intermediate Examination,* recognition vocabulary scores, recall vocabulary scores, quantitative vocabulary scores, and the number of recall and recognition responses in two of the categories of the qualitative scale. However, no sex differences were discovered in terms of recall or recognition vocabulary scores for either USES or LSES groups.

2. In comparing the two groups for both recognition and recall vocabulary, the USES gave a significantly higher number of abstract responses compared to the LSES group. Conversely, the LSES group gave a significantly higher number of Error type responses than the USES group for both recall and recognition vocabulary. In both cases, the differences were significant beyond the .01 level of confidence. (See Figures 1 and 2).

3. For the total sample, both recognition and recall vocabulary correlated highly with quantitative vocabulary and with mental age beyond the .01 level. Recall vocabulary correlated with absence of either parent in the home at the .05 level of confidence. Both recognition and recall vocabulary correlated highly with socio-economic status, grade level and with each other. However, the variable designed to assess absence of either parent in the home proved to be a redundant variable in terms of socio-economic status for the LSES group.

4. For the total sample, socio-economic status correlated highly with all variables except grade level, sex and chronological age (See Table 1).

5. For the total sample, socio-economic status scores did not significantly predict recognition vocabulary scores.

Conclusions and Implications

The LSES group appeared to operate at a lower level of conceptualization than the USES group. That fact and the tendency for the LSES group to continue to regress in terms of conceptualizing ability, points to the necessity for some kind of intervention by educators to overcome the "cumulative deficit phenomenon" hypothesized by Deutsch (1965, p. 80). However, while there was a tendency for the LSES child to prefer the more concrete and inferior kinds of responses, this preference should not be considered irreversible. It is just that the cumulative nature of this conceptual and verbal deficit requires intervention at an early age before patterns of response have become habitual.

The fact that recognition and recall vocabulary scores correlated highly with mental age scores, socio-economic status scores and absence of either parent in the home scores, reveals the close relationships which prevail between environment, intellectual functioning, and the development of word meanings.

In looking at the total sample, it was found that recognition vocabulary scores were relatively unaffected by socio-economic status scores. On the basis of this finding, it would appear that the child's ability to recognize words within a given context is more highly developed than his ability to call up word meanings from memory. As such, a program of remediation which begins with the culturally deprived child's area of strength, namely his recognition vocabulary, would be proceeding from an area of strength in the child's background.

Furthermore, since the culturally deprived child's language appears oriented towards the immediate and the concrete in terms of usage, it would seem that any remedial program for such children begin at this level of conceptual functioning before moving on to more abstract kinds of responses.

Since the child's attitude towards language appears to be a function of the life style of the home environment, more information needs to be gathered about the processes by which his language development is influenced and controlled by those in his immediate environment.

Finally, as the cumulative deficit phenomenon suggested by Deutsch has been partially substantiated by the findings, a developmental study appears warranted to ascertain what kinds of language experiences will provide the greatest advantage to overcoming this deficit. In addition, such a study would be useful in determining the influence of such variables as sex, age, and parental absence in the home on the development of verbal functioning in the young child.

FIGURE 1

RECOGNITION VOCABULARY TEST RESULTS COMPARING THE ACHIEVEMENT OF THE TWO SOCIO-ECONOMIC GROUPS

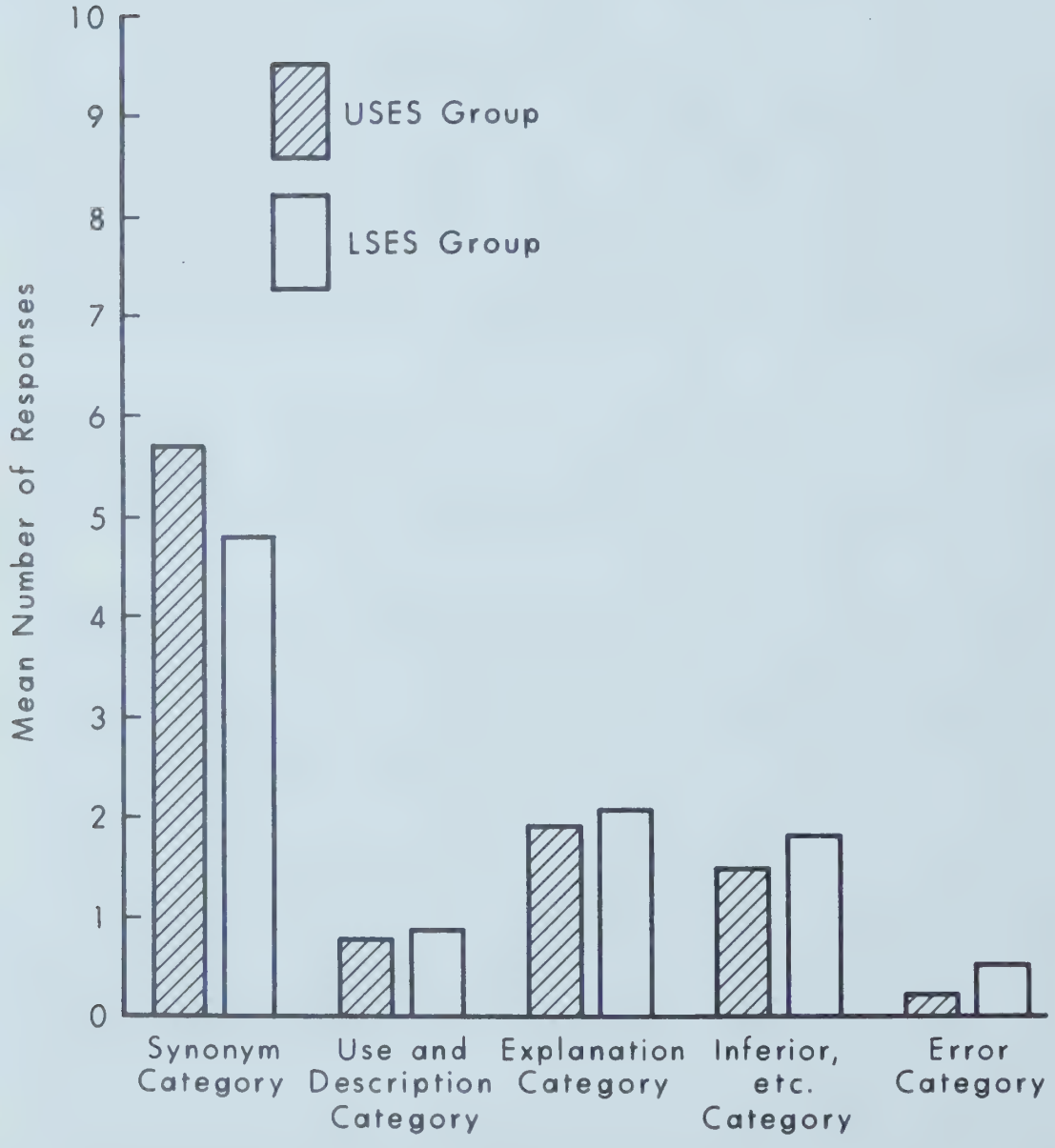

FIGURE 2

RECALL VOCABULARY TEST

RESULTS COMPARING THE ACHIEVEMENT

OF THE TWO SOCIO-ECONOMIC GROUPS

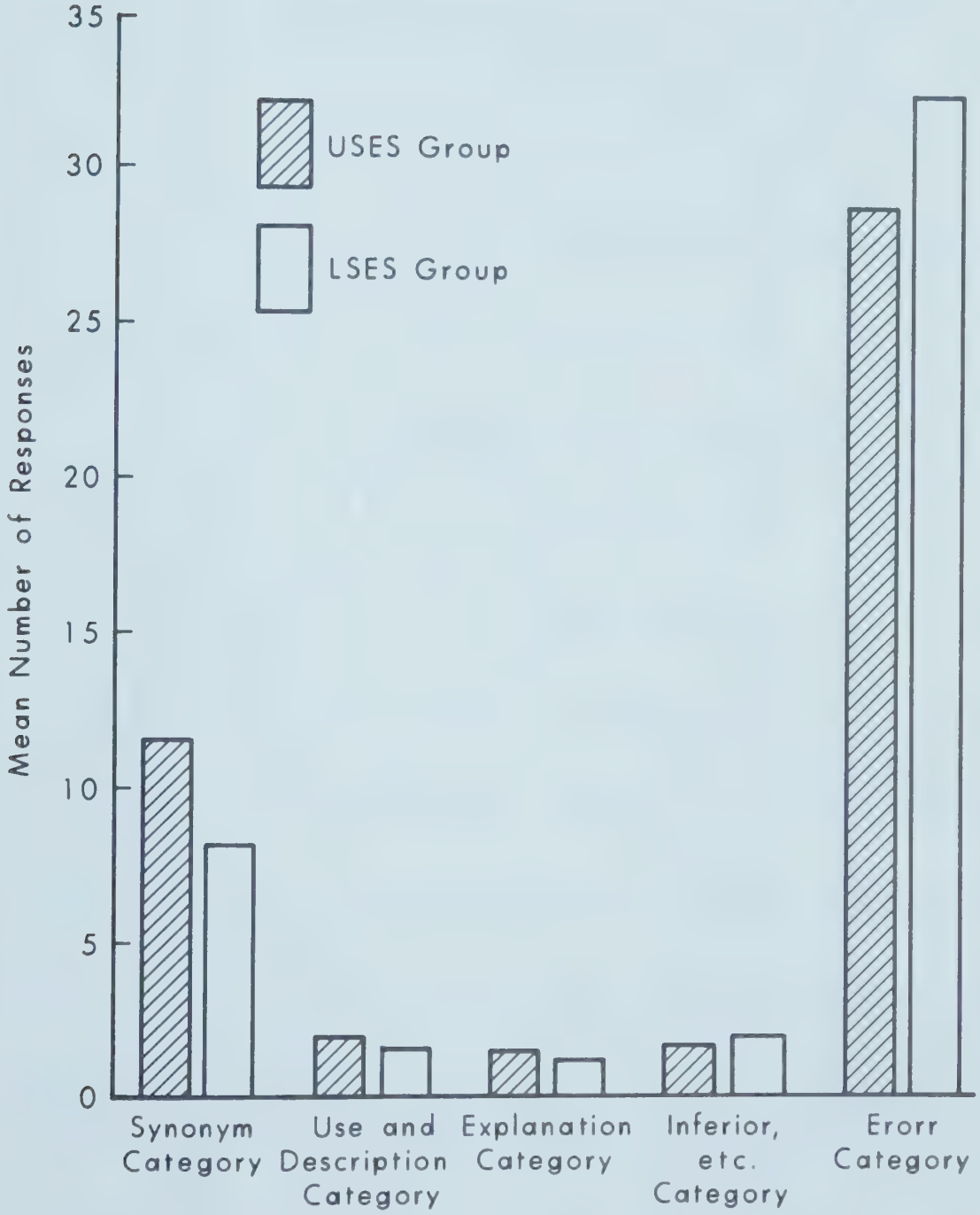

TABLE I

INTERCORRELATIONS AMONG VARIABLES

N = 155 Variable		1	2	3	4	5	6	7	8	9	10	11	12	13
1.	RECALL VOCABULARY	1.00	0.27**	0.77**	0.50**	-0.37	-0.12	0.49**	0.52**	0.95**	-0.24	0.24*	0.00	0.52**
2.	CHRONOLOGICAL AGE		1.00	0.22*	0.79**	-0.69	0.03	0.67**	0.14	0.23*	-0.02	0.02	0.07	0.12
3.	MENTAL AGE			1.00	0.53**	-0.44	-0.02	0.47**	0.51**	0.77**	-0.22	0.22*	-0.06	0.53**
4.	GRADE: TOTAL				1.00	-0.86	0.01	0.86**	0.05	0.46**	-0.09	0.09	0.02	0.26**
5.	GRADE IV					1.00	-0.51	0.49	-0.04	-0.32	0.09	-0.09	-0.02	-0.20
6.	GRADE V						1.00	-0.50	-0.00	-0.14	-0.03	0.03	0.02	-0.06
7.	GRADE VI							1.00	0.05	0.47**	-0.06	0.06	0.00	0.26**
8.	SOCIOECONOMIC STATUS								1.00	0.55**	-0.47	0.47**	-0.00	0.38**
9.	QUANTITATIVE VOCABULARY									1.00	-0.24	0.24*	0.02	0.52**
10.	PRESENCE OF EITHER PARENT IN THE HOME										1.00	-1.00	0.06	0.17*
11.	ABSENCE OF EITHER PARENT IN THE HOME											1.00	-0.00	0.17*
12.	SEX: FEMALE												1.00	0.08
13.	RECOGNITION VOCABULARY													1.00

**Significant at the .01 level, $r > .25$.

*Significant at the .05 level, $r > .13$.

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Jungian, Frieudian and other theories of personality differ on the question of whether or not extroversion/introversion is related to psychological adjustment. This study investigated the issue with specific reference to late adolescent female college students who were applying for admission to teacher certification programs. Results support the association of psychological adjustment and extroversion.

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Jung's Typology and Psychological Adjustment In Prospective Teachers: A Preliminary Investigation

Both Jung (1923), who introduced the concept of extroversion/introversion, and Eysenck (1960), who is perhaps most responsible for the current scientific respectability of the construct (at least in the British Commonwealth—for negative American opinions see Holtzman, 1965; Ruch, 1962), hold that this personality dimension is unrelated to psychological adjustment/maladjustment.

This view is at variance not only with the Freudian model wherein introversion is considered psychopathological (Carrigan, 1960), but also with the personality theory of Murphy (1947), who, in essence, states that the dimension of extroversion/introversion does not really exist, and that it is all a matter of "high self-esteem" (extroversion) and "low self-esteem" (introversion). However, not all Jungian exegetes maintain that the extroversion/introversion typology is entirely unrelated to our understanding of problems of adjustment and maladjustment. Jacobi (1962), for example, makes two points: first, that the born extrovert will have an easier time "making the adjustment to the environment which is the main business of the first half of life," while the introvert is more likely to cope better with the second half of life; second, that

the extremes of extroversion and introversion are a danger to psychological adjustment, in adolescence as well as at other ages; extremes of introversion are regarded as especially dangerous for young individuals.

The purpose of this study was to invesigate the following questions: Is extroversion/introversion related to psychological adjustment in prospective teachers? Does marked imbalance either in extroversion or introversion have consequences for psychological adjustment?

From the theoretical positions of Freud, Murphy and even that of Jung (as interpreted by Jacobi, 1962), the central hypothesis tested in this study can be derived: In college student populations the extroverson/introversion dimension is significantly associated with measures of psychological adjustment and of self-esteem.

There is also empirical support for this hypothesis when psychological adjustment is operationally defined as positiveness of perceptions of the phenomenal world. Bown & Richek (in press) and Richek & Bown (1968) found extroversion/introversion to be related both to self-esteem and to positive perceptions of the phenomenal world as these were measured by the Bown Self Report Inventory (Bown & Richek, 1967). The adequacy of such an operational definition of psychological adjustment is buttressed by Davis (1965) who, in his analysis of large scale research studies on mental health, cites rather impressive evidence confirming the association of self-esteem, "general affective states" and psychological adjustment.

Methods and Procedures

On 365 female college students, all of whom were at the point of entrance to programs leading to teacher certification, scores from two instruments were obtained: The Myers-Briggs Type Indicator (MBTI) (1962) and the Bown Self-Report Inventory (SRI) (Bown & Richek, 1967). The former instrument provides measures of Jung's typology; the latter, a 48 item instrument based on Carl Roger's phenomenological theory of personality, measures perceptions of the self and seven additional aspects of the phenomenal world: *Others, Children, Authority, Work, Reality, Parents,* and *Hope.* There is *Total* Score which is the single sum of the other eight scales and which purports to represent general positiveness of respondent perceptions of their phenomenal worlds. Semantically, the *Total* Score appears to operationalize psychic syntonia/dystonia, i.e., harmony or lack thereof with one's self and/or one's environment (Hinsie & Campbell, 1960).

To investigate the influence of marked imbalance of extroversion/introversion on psychological adjustment, all Ss were further categorized as "extreme" or "moderate." This was accomplished as follows:

For Extroverts (N=229), the range of difference scores were 52, i.e., from one to 53. All Ss with extroversion scores from one to 25 were considered "moderate" extroverts while those with extroversion scores from 27 to 53 were "extremes." There were 119 "moderate" and 110 "extreme" extroverts.

For introverts (N=136), the range of difference scores was 54, i.e., from one to 55. All Ss with introversion scores from one to 21 were considered "moderate" introverts while those with introversion scores from 23 to 55 were considered "extremes." There were 70 "moderate" and 66 "extreme" introverts.

Statistical Procedures and Null Hypotheses

MBTI extroversion/introversion scores have been found to be related to the SRI *Self* and *Total* scores; for purposes of empirical verification (with an entirely new sample) of these previously established associations, Pearson product-moment correlations of all MBTI and SRI scores were obtained. These results appear in Tables 1 and 2.

The basic statistical technique, however, was the t test for significance of the difference between the means of independent samples (Gourevitch, 1965). Primary comparisons were between "moderate" and "extreme" extroverts and "moderate" and "extreme" introverts. Dependent variables were the nine SRI variables with the *Self* and *Total* Scores considered as the criteria of psychological adjustment. While the use of test scores as criterion measures is considered dubious in establishing the concurrent validity of instruments, Anastasi (1961) does indicate that the procedure is sometimes employed to provide evidence of construct validity. In a preliminary investigation, recourse to what are essentially correlational techniques has a certain justification (Tate, 1965).

The specific hypotheses (in null form) which were tested in this study are as follows:

1. There is no difference between extroverts and introverts on the SRI measures of psychological adjustment.

2. There is no difference between moderate extroverts and extreme extroverts on the SRI measures of phychological adjustment.

3. There is no difference between moderate and extreme introverts on the SRI measures of psychological adjustment.

Results and Discussion

Intercorrelations of SRI and MBTI Variables

As is evident from examination of Tables 1 and 2, there are many statistically significant associations among the SRI variables and the

Extroversion/Introversion (E/I) Continuous Scores of the MBTI. In fact, for the secondary school group, all nine correlations are significant with eight of the nine significant at the $p < .01$ level. For the 65 elementary students, there are five significant correlations. It is to be emphasized, however, that for both groups, the E/I continuous score correlates significantly with the *Self* and *Total* scores which have been set forth as measures of psychological adjustment.

The other MBTI continuous scores (i.e., the so-called "function" types, cf. Jung, 1923) do not correlate significantly with the SRI *Self* and *Total* score except for the Judging/Perceiving scores and here the correlations, although significant, are low.

TABLE 1

INTERCORRELATIONS OF SRI VARIABLES AND MBTI SCORES

FOR 300 FEMALE PROSPECTIVE SECONDARY SCHOOL TEACHERS

	MBTI Continuous Scores			
SRI Variables	E/I	S/N	T/F	J/P
Self	-.31**	-.11	.01	-.14*
Others	-.49**	-.11	.22**	.02
Children	-.28**	-.02	.08	-.05
Authority	-.32**	-.11	.05	-.21**
Work	-.17**	-.08	-.06	-.36**
Reality	-.23**	.15**	.06	.06
Parents	-.12*	-.05	-.03	-.12*
Hope	-.28**	-.13*	.04	-.11
Total	-.44**	-.09	.07	-.20**

Note: Where the coefficient is negative in sign, the relationship is positive with Extroversion (E); Sensation (S); Thinking (T) and Judging (J). Where the coefficient is positive in sign, the relationship is positive with Introversion (I); Intuition (N); Feeling (F) and Perceiving (P).

*p<.05; **p<.01

TABLE 2

INTERCORRELATIONS OF SRI VARIABLES AND MBTI SCORES

FOR 65 FEMALE PROSPECTIVE ELEMENTARY SCHOOL TEACHERS

SRI Variables	MBTI Continuous Scores			
	E/I	S/N	T/F	J/P
Self	-.26*	.02	-.07	-.25*
Others	-.50**	-.18	.46**	-.03
Children	-.22	-.26*	.22	-.05
Authority	-.30*	.00	.10	-.25*
Work	-.23	.15	-.08	-.40**
Reality	.00	.22	-.06	-.07
Parents	-.16	-.03	.13	-.18
Hope	-.38**	-.18	.26	-.04
Total	-.37**	-.02	.15	-.28*

Note: Where the coefficient is negative in sign, the relationship is positive with Extroversion (E); Sensation (S); Thinking (T) and Judging (J). Where the coefficient is positive in sign, the relationship is positive with Introversion (I); Intuition (N); Feeling (F) and Perceiving (P).

*p<.05; **p<.01

These findings are congruent with those of other studies: Bown & Richek (in press) and Richek & Bown (1968). In these investigations, with a different sample of female prospective teachers, similar correlations were reported.

E/I Preference and Psychological Adjustment

The results of the t tests (shown in Table 3) make it evident that the null hypothesis of no difference between extroverts and introverts on the SRI measures of psychological adjustment is rejected. Jacobi's (1962) hypothesis that extroverts make a more positive adjustment to their environments in the first half of life receives impressive support from the data of this study. The Freudian position on the psychopathological consequences of introversion would also seem to be substantiated.

When both the extroverts and introverts were further categorized as "moderate" and "extreme" and were compared in the SRI variables, some interesting results appeared. One of the main findings (see Table 4) was that extreme introverts score significantly lower than moderate introverts on the two SRI measures of psychological adjustment. In this regard, Jacobi's (1962) hypothesis that a marked imbalance towards the introversion role of youth does not bode well for psychological adjustment is confirmed. However, Jacobi's hypothesis *vis à vis* imbalance in extroverts is *not* supported; in fact, extreme extroverts score higher on the SRI *Self* scale than do moderate extroverts ($p < .05$). The difference on the SRI total score is not significant.

Of special interest to educators is the fact that while extroverts have significantly more positive perceptions of children than do introverts ($p < .01$, see Table 3), extreme introverts do not differ from moderate introverts nor do extreme extroverts differ from moderate extroverts on this dimension (see Table 4).

In summary, null hypothesis No. 1 and No. 3 may be rather forthrightly rejected; for null hypothesis No. 2, the results are equivocal.

TABLE 3

MEAN SRI SCORES AND STANDARD DEVIATIONS FOR 229 FEMALE EXTROVERTS AND 136 FEMALE INTROVERTS

	Extroverts (N=229)		Introverts (N=136)		
SRI Variable	Mean	SD	Mean	SD	t
Self	20.38	3.32	18.32	4.46	5.04**
Others	21.37	2.19	18.85	3.11	9.03**
Children	19.05	4.23	16.59	4.76	5.12**
Authority	19.45	3.17	17.69	3.13	5.14**
Work	17.25	3.62	16.03	3.72	3.08**
Reality	17.16	3.13	15.94	3.56	3.43**
Parents	19.49	5.15	18.16	5.34	2.33*
Hope	20.91	2.56	19.46	2.98	4.49*
Total	155.07	15.96	141.03	16.95	7.94*

*p<.05 **p<.01

TABLE 4

MEAN SRI SCORES AND STANDARD DEVIATIONS FOR 229 FEMALE EXTROVERTS AND 136 FEMALE INTROVERTS CATEGORIZED AS MODERATE AND EXTREME

	Extroverts					Introverts				
	Moderate (N=119)		Extreme (N=110)			Moderate (N=70)		Extreme (N=66)		
SRI Variable	Mean	SD	Mean	SD	t	Mean	SD	Mean	SD	t
Self	19.93	3.32	20.86	3.27	2.14*	19.11	4.08	17.47	4.71	2.17*
Others	20.91	2.21	21.86	2.07	3.36**	19.77	2.82	17.88	3.13	3.69**
Children	18.74	4.16	19.39	4.30	1.59	16.81	4.45	16.35	5.09	<1
Authority	19.10	3.27	19.84	3.03	1.78	18.06	2.77	17.30	3.45	1.4
Work	17.24	3.58	17.26	3.68	<1	16.14	3.65	15.91	3.81	<1
Reality	17.15	2.96	17.17	3.33	<1	16.21	3.30	15.63	3.81	<1
Parents	19.55	4.84	19.43	5.49	<1	18.79	5.20	17.50	5.45	1.41
Hope	20.61	2.77	21.25	2.28	1.92	19.87	2.48	19.02	3.40	1.66
Total	153.24	15.87	157.06	15.90	1.82	144.77	15.52	137.06	17.61	2.7**

*p<.05 **p<.01

Conclusions and Implications

While an attempt was made to demonstrate that the hypotheses tested in this study were deducible from several theoretical positions, it certainly cannot be represented that the findings have definite implications for theory. This study—a preliminary investigation—has an acknowledged major limitation, namely, the criterion of psychological adjustment is a self-report inventory; such instruments in the personality domain are heir to the special difficulties so well described by Anastasi (1961, p. 519-523). Also, the differences in the positiveness of perception of the phenomenal worlds of extroverts and introverts—impressive as they are—may prevail only in youth (as Jacobi maintains) and further only in milieux such as the United States where (as Ausubel, 1965, points out) extroversion is so highly valued over introversion. It is apposite to mention here that Jungians claim that what is observed in the lives of individuals may also prevail in the lives of people. An interesting variation of the investigation here reported would be to have three samples of prospective teachers: American, Canadian, and English.

In any event, the findings of this study do appear to have implications for teacher preparation practices. There seems little doubt but that extroverts hold more positive perceptions of children than do introverts; this finding also emerged with a different sample of prospective teachers (Bown & Richek, in press). Sontag & Kagan (1963) maintain that the qualities of warmth and a helping orientation are essential in elementary school teachers in grades 1 through 4 (with children aged 6 through 10) so that the child may achieve optimal cognitive and personality development. The hypothesis that children in the first four years of school respond optimally to extroverted rather than to introverted teachers would seem eminently worthy of investigation.

The findings that the prospective teacher subjects in this study showed greater preference for extroversion is essentially banal although it does provide empirical evidence for a commonplace observation—at least in the United States. In fact, Ausubel (1965) has expressed considerable concern over the extent to which American education has "succumbed" to the "cult of extroversion" and inveighs against over emphasis on this dimension in the selection and evaluation of teachers.

Ausubel's strictures on the undue weight given to extroversion by American educators seem cogent. Even if it were definitely established that extroverts in youth are psychologically healthier than introverts, it would not necessarily follow that introverts make less effective teachers. Ausubel writes:

> . . . many excellent teachers who happen to be shy and introverted are viewed with alarm by their psychologically oriented superiors. Yet there is absolutely no evidence that they impair their pupils' mental health, even

though they may conceivably be less popular as individuals than their extroverted colleagues. (1965, p. 99.)

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Comparisons were made between students and counselors on perceptions of the role of high school counselor. Results showed significant differences between the two groups in what was considered to be appropriate problems for counselor-student discussion.

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Differential Perceptions of the School Counselor's Role

In recent years the importance of guidance and counseling services has been recognized by many school systems across Canada. Although a number of changes within the profession have accompanied this trend, the most significant has been the broadening of the concept of "guidance" to encompass personal-social counselling in addition to the more traditional educational and vocational services. The developing role of today's counselor requires that he recognize the inextricable relationship between the personal, social, educational, and vocational problems encountered by students. An adequate solution to a disturbing educational problem often involves focusing upon the personal concerns of the student rather than dealing directly with the educational difficulty itself.

In spite of this broader definition of counselor role, various studies (Bergstein & Grant, 1961; Dunlop, 1965; Grant, 1954; Hitchcock, 1953; King & Matteson, 1959; Perrone, Weiking, & Nagel, 1965; Rippee, Hanvey & Parker, 1965; Schmidt, 1962; Sweeny, 1966; and Varman, 1960), have found that teachers, administrators, students, parents, and counselors themselves differ markedly in the extent to which they perceived personal-social-emotional counseling to be a part of the school counselors' responsibilities. These studies indicated that many people still perceived the primary responsibility of the school counselor to be

educational and vocational counseling: personal-social counseling was consistently perceived to be a less appropriate area for counselor involvement.

Investigations of the counselor role have invariably drawn upon role theory to provide the conceptual basis for their empirical analyses. In general, role theorists propose that a person's role is learned, perceived by others, and created through the reciprocal or interactive process between significant role definers and the position occupants (Bently, 1965; Sargent, 1951). Ivey and Robin (1966) stated further that the way a role incumbent defines his role will largely depend upon *what he perceives* to be the expectations and demands made upon him by the various social groups whose judgments he considers to have significance for him. Ivey and Robin maintain that the extent to which an individual's role behavior is congruent with the expectations of the various groups will depend upon the extent to which he internalizes the norms or expectations of these groups. It follows that an investigation of counselor role should focus not only upon a group's perception of what the counselor's role should be but also upon the counselor's perceptions of the perceptions of significant others (Ivey and Robin, 1966).

Problem and Method

The purpose of the present investigation was to analyse the role of the high school counselor as perceived by both high school counselors and high school students, and to determine how accurately the counselors perceived the students' perceptions of the counselor's role. Counselor role was defined in terms of the types of problems (personal, social, educational, vocational) considered to be appropriate for counselor-student discussion.

The hypothesis which was tested stated that significant differences exist among students, counselors, and counselors'-perception-of-students'-perceptions regarding types of problems considered appropriate for counselor-student discussions. In order to test this hypothesis, two populations, student and counselor, were sampled. The student sample consisted of 434 grade eleven students registered in eight Edmonton Public High Schools; the second sample consisted of 46 high school counselors who were, at that time, counseling on a full time or part time basis in the same eight schools.

A modification of a questionnaire designed by Warman (1960) was used. The validity of the test items was determined by factor analyzing and rotating to the varimax criteria the responses of 104 randomly selected grade eleven students. This analysis yielded three distinct factors which could be clearly described as Personal-Social, Educational, and Vocational.

For the purposes of the statistical analysis, the Personal-Social factor was subdivided into a *Personal* scale, comprised of those items describing problem situations involving the individual alone, and a *Social* scale, consisting of those items which described problem situations arising directly from one's relationships with other people. The final instrument consisted of 73 items which formed four distinct scales. These scales were: *Personal* (a representative item in this scale: "I seem to be unusually depressed and unhappy."); *Social* ("I cannot act natural when with new people."); *Educational* ("I would like assistance in learning good study habits."); *Vocational* ("I do not know what kind of a vocation I am suited for.").

Directions specified that the respondent was to read each item and indicate on a five-point scale the extent to which each problem described would be appropriate for counsel-student discussion. A rating of *1* indicated "Very Appropriate"; *2*, "Appropriate"; *3*, "Uncertain" or "Undecided"; *4*, "Inappropriate"; and *5*, "Definitely Inappropriate".

Questionnaires were administered to the student sample during a scheduled class period by the classroom teacher who had been previously instructed by the researchers on procedures for administering the instrument.

Each counselor received two questionaires. Directions on the first questionnaire instructed the counselor to indicate the extent to which he considered each item to represent an appropriate problem for counselor-student discussion. The second questionnaire specified that the counselor was to rate each item as he thought grade eleven students would rate the same items. This questionnaire was designed to measure how accurately the counselors perceived the students' perceptions of the counselor's role.

Results

The hypothesis that significant differences exist among students, counselors, and counselors-responding-as-students (C-as-S) was tested using an analysis of variance design. Item responses within each scale were summed and averaged, giving the mean rating for each group on each scale. The dependent variable was the mean rating scores for each group on each of the four scales. For the F values in the analysis of variance, Winer's (1962) F table was used. Following a significant F-value, a modified q statistic using the Newman-Keuls Method was used for testing the significance of difference between pairs of ordered means.

A one way analysis of variance was performed on each scale to determine whether there were any significant differences between the mean scores of the groups on each of the four scales. The results of these analyses are presented in Table 1.

TABLE 1

ANALYSIS OF VARIANCE: PERSONAL, SOCIAL,

EDUCATIONAL, AND VOCATIONAL SCALE SCORES

Source of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F Value	Significance
Personal Scale					
Groups	25179.00	2	12589.50	68.08	$p<.01$
Error	96714.00	523	184.92		
Total	121893.00	525			
Social Scale					
Groups	37096.00	2	18548.00	67.79	$p<.01$
Error	143106.00	523	273.62		
Total	180202.00	525			
Educational Scale					
Groups	764.88	2	382.44	4.74	$p<.01$
Error	4222.81	523	80.74		
Total	42993.69	525			
Vocational Scale					
Groups	2287.75	2	1148.87	5.72	$p<.01$
Error	104585.94	523	199.97		
Total	106873.69	525			

Because the F ratio was significant for every scale, further tests were carried out using the Newman-Keuls Method of comparing ordered means. The results of these tests are presented in Tables 2 to 5.

The analysis of variance of the Personal Scale scores reported in Table 1 produced an F value of 68.08 which exceeds that required for significance at .01 level of confidence. The significance of differences among the counselors', students', and C-as-S means on the Personal Scale are reported in Table 2. The mean scores are ordered from lowest to highest. The lower means indicate that the problem, on the average, is perceived to be more appropriate for counselor-student discussion than the higher mean scores.

TABLE 2

COMPAIRSON BETWEEN ORDERED MEANS: PERSONAL SCALE SCORES

Group	Mean	S.D.	Students (55.30)	C-as-S (43.28)
Counselors	32.78	11.11	22.52**	10.50**
C-as-S	43.28	16.79	12.02**	
Students	55.30	13.46	0.0	

**p<.01

Upon examining Table 2 it is clear that counselors perceived personal problems to be more appropriate for counselor involvement than did students. The significant differences between counselor and C-as-S mean scores, and C-as-S and student mean scores indicate that counselors are not aware of the extent to which students consider personal problems to be appropriate problems for discussion. Stated differently, the gap between the students' perceptions and the counselors' perceptions regarding the appropriateness of discussing personal problems with a counselor is much greater than the counselors seem to realize.

The overall results of the analysis of Social Scale scores in Table 3 proved to be almost identical to the analyses of the Personal Scale scores; the counselors perceived social problems to be significantly more appropriate for counselor-student discussion than did students. The difference of 13.29 between the students' mean score and the C-as-S score proved to be highly significant, and reflects the difference in the extent to which students actually perceive social problems to be ap-

propriate for counselor involvement and the extent to which counselors believe that the students perceive these problems to be appropriate for counselor-student discussion. As with personal problems then, the results revealed that counselors are not aware of the extent to which students perceived social problems to be appropriate for counselor-student discussion.

TABLE 3

COMPARISON BETWEEN ORDERED MEANS: SOCIAL SCALE SCORES

Group	Mean	S.D.	Students (62.44)	C-as-S (49.15)
Counselors	34.54	13.08	27.90**	14.61**
C-as-S	49.15	19.84	13.29**	
Students	62.44	16.49	0.0	

**p<.01

Table 4 compares the mean scores for each group on the Educational Scale. Only one difference, significant at the .05 level of confidence, was found between the counselors' mean score and the students' mean score. The findings indicate that counselors perceived educational problems to be slightly more appropriate for counselor involvement than

TABLE 4

COMPARISON BETWEEN ORDERED MEANS: EDUCATIONAL SCALE SCORES

Group	Mean	S.D.	Students (28.16)	C-as-S (26.33)
Counselors	24.13	5.11	4.03*	2.20
C-as-S	26.33	8.23	1.84	
Students	28.16	9.37	0.0	

*p<.05

did the students. The C-as-S mean score did not differ significantly from either the counselors' or the students' mean scores, indicating a fairly high degree of congensys among the three perceptions regarding the educational problems for counselor-student discussion.

The findings in Table 5 are similar to those on the educational scale, with counselors perceiving vocational problems to be slightly more appropriate for counselor involvement than the students. As before, the C-as-S mean score did not differ significantly from either the counselors' or the students' mean scores. The results point to a high degree of understanding between students and counselors when the problems can be described as vocational in nature.

TABLE 5

COMPARISON BETWEEN ORDERED MEANS: VOCATIONAL SCALE SCORES

Group	Mean	S.D.	Students (33.74)	Counselors (28.46)
C-as-S	28.04	7.55	5.69	0.41
Counselors	28.46	6.40	5.28*	
Students	33.74	15.21		

*$p<.05$

Discussion

On the basis of the results presented, it seems clear that high school students and high school counselors differ markedly in what they perceive to be appropriate problems for counselor-student discussion. While counselors perceived all four types of problems to be more appropriate for counselor involvement than did students, differences between students and counselors on the educational and vocational scales were slight as compared with differences on the personal and social scales.

On another dimension the results were similar. Differences between students' perceptions and counselors'-perceptions-of-students'-perceptions on the personal and social scales proved to be highly significant, while differences on the educational and vocational scales were not significant. That high school counselors are not aware of the extent to which students perceive personal and social problems to be appropriate for counselor-student discussion is considered to be one of the important findings of this study.

A high degree of agreement exists between students and counselors when the role of the counselor is defined in terms of educational and vocational problems. However, this agreement does not exist in matters of personal and social concern. In spite of the vastly improved counselor education programs, and the greater number of trained counselors in the schools, the school counselor is still perceived by students as the antiquated guidance worker whose responsibilities are limited to the provision of educational and vocational assistance.

The present investigation revealed evidence in support of the argument that the nature of the counselor's work is determined more by role expectations than by the training and competence he possesses. Certainly, the counselor must take the initiative in defining his role to students. In addition, since students obtain their perceptions of the counselors' role from persons other than the counselor, he must also communicate his role definition to other significant groups within the social structure of the school. These groups, parents, teachers and administrators, in referring students to the counselor, also help determine student expectations of the counselor's role. To be fully effective, the counselor must recognize this responsibility in making the public aware of the competencies he has developed and the areas in which he is prepared to use them.

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BOOK REVIEWS

WHAT DOCTRINES TO EMBRACE

By: Charles Burgess and Merle L. Borrowman (Keystone of Education series:Glenview, Illinois: Scott, Foresman, and Company, 1969), 162 pp.

In their recent contribution to history of American education, Professors Charles Burgess and Merle Borrowman examine a few of the more provocative ideas that have shaped the course of educational theory and practice since 1800. Their study might be considered an analysis of the "messianic tradition" in education.

The first of five chapters, "The Insidious Encroachments of Innovation," addresses itself to the ideological split manifest by "reformist" and "traditionalist" educators of the early nineteenth century. The ideas of Samuel Miller, Thomas Cooper, Horace Holley, and Philip Lindsley set the stage for the struggle between "sectarian" and "enlightenment" forces over the control of the schools. "Pedagogical Problems and Polemics," Chapter Two, discusses the relationship of the school to the community. The views of Horace Mann, William Maclure, and Jonathan Baldwin Turner are explored. Chapter Three, "Pangloss and the Primitive," and Chapter Four, "Atlantis and the Great Community," investigate the social and political orientation of William Harris, Granville Stanley Hall, and John Dewey. Questioning the school as a reform agent, these sections introduce the reader to problems that accompanied urbanization. The last part, "Babies, Bombs, and Business," reviews educational patterns from the early 1900's to the 1960's. The beliefs of Hyman Rickover, Jerrold Zacharias, and James B. Conant assume importance in the light of new demographic and technological changes.

By a judicious selection and arrangement of subject-matter, the writers develop insightful and balanced interpretations of doctrines, personalities, and movements; the result of which is not an in-depth historical monograph but rather a study of specific issues covering an extended period of time. Such a task is difficult to accomplish as the period lends itself to a variety of historical perspectives. Nevertheless, the authors achieve their stated purpose. In addition, a lively and interesting writing style helps to convey a sense of immediacy to the questions under consideration. Both secondary and primary source materials have been used to good advantage.

When viewed collectively, the chapters "depict a chronological progression" of events; whereas taken separately, they compose a series of independent essays. Burgess and Borrowman offer a work that captures the historical sweep of persistent educational problems and the

significance of these problems to the ideals of particular crusaders. *What Doctrines to Embrace* should be read with interest and profit not only by students of history but by all concerned with the religious, economic, and political pressures that to such a large extent determine the aims and methods of education.

HENRY W. HODYSH
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EDUCATIONAL ADMINISTRATION AND THE SOCIAL SCIENCES

By: George Baron and William Taylor (eds.) (London: The Athlone Press, University of London, 1969), 193pp.

As a first attempt in England to "give form to educational administration as a field of study" this book reviews comprehensively, though not in depth, the main contributions of the social sciences to the study of educational administration and seeks to link the "familiar day to day problems of the administrator with theoretical concepts drawn from the social science disciplines."

In Chapter 1 Baron outlines the development of the study of organizations in North America. He identifies three major streams in this development: the social science approach, the organizational theory approach and that of management science. He suggests that as the insights of these three streams of thought are applied in England there should be an immediate concentration on the development of a large body of case study material similar to that which has been developed in the United States.

Eggleston, in the second contribution, deals primarily with the methods that have been used to investigate the social contexts of administration. The strengths and weaknesses of the case study and correlational methods are discussed and a simplified systems model is developed to illustrate the conceptual and theoretical advantages of systems theory as an analytical tool.

Together with a timely warning about the dangers of eclecticism in multi-disciplinary studies, the third chapter shows how a variety of sociological theories might be applied in the field of educational administration. The first section of the book is rounded out with a chapter dealing with the developing role of economic analysis in educational administration and a somewhat normative outline of role and leadership theory as they might be applied to the position of headmaster.

Part two contains five chapters which attempt to show practical applications of administrative theory in: (1) the training of school administrators, (2) the changing and developing of curriculum, (3) the introduction of technological innovations, (4) the development and use

of operations research in educational organizations, and (5) the administration of larger school units.

To the North American student of educational administration this collection of essays presents little that is new and there is considerable repetition of the historical development of administrative studies. There is too, a somewhat perturbing implication in several of the contributions that generalization from North American experience is to be eschewed in the English setting. While it is important to recognize differences between the two systems, over-emphasis on these could lead to a premature rejection of much that is theoretically sound and heuristically fruitful.

A major interest of the book lies in the insight it gives into some of the problems currently facing educational administrators in England: problems such as the implementation of a higher school leaving age, the change of comprehensive secondary schools and the increasing size of school units. There are also some interesting accounts of the imbalances perceived in the pattern of North American research and some concise statements of trends, problems and possible developments.

The book provides a good overview of the study of educational administration for those who are new to the field, and for those who, weary of struggling through the underbrush and bumping into trees, might wish to take a quick look at the forest in which they are enmeshed.

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GARY J. ANDERSON was a Teaching Fellow, Harvard University; Research Assistant, Harvard Project Physics; Assistant Professor, McGill University, Faculty of Education and in the newly formed Centre for Learning and Development in the Psychology Department. He has published in the *American Educational Research Journal, Journal of Educational Psychology, Journal of Creative Behavior,* and *International Journal of Educational Sciences.* He is presently conducting research on instructional climates and large course instruction at the university level.

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